



Designation: D 5504 – 9801

Standard Test Method for Determination of Sulfur Compounds in Natural Gas and Gaseous Fuels by Gas Chromatography and Chemiluminescence¹

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1. Scope

1.1 This test method ~~provides~~ is primarily for the determination of ~~individual~~ speciated volatile sulfur-containing compounds in high methane content gaseous fuels ~~including such as~~ natural gas. It has been successfully applied to other types of gaseous samples including air, digester, landfill, and refinery fuel gas. The detection range for sulfur compounds, reported as picograms sulfur, is ten (10) to one million (1 000 000). This is equivalent to 0.01 to 1 000 mg/m³, based upon the analysis of a ~~1-cm³~~ 1 cc sample.

1.2 ~~This~~ test method does not purport to identify all ~~individual~~ sulfur species in a sample. Only compounds that are eluted through the selected column under the chromatographic conditions chosen are determined. The detector response to sulfur is equimolar for all sulfur compounds within the scope (1.1) of this test ~~method; thus unknown individual~~ method. Thus, unidentified compounds are determined with equal precision to that of ~~known compounds~~ identified substances. Total sulfur content of ~~samples can be estimated~~ is determined from the total of the ~~individual compounds determined~~ individually quantified components.

1.3 The values stated in SI units are ~~to be regarded as~~ standard. The values stated in inch-pound units are for information only.

1.4 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

2. Referenced Documents

2.1 *ASTM Standards:*

¹ This test method is under the jurisdiction of ASTM Committee ~~D-3~~ D03 on Gaseous Fuels and is the direct responsibility of Subcommittee D03.05 on Determination of Special Constituents of Gaseous Fuels.

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